

**CHANNEL ISLANDS NATIONAL MARINE SANCTUARY
SANCTUARY ADVISORY COUNCIL**

FINAL MEETING NOTES

Friday, July 23, 2004

8:30 am – 4:30 pm

**Visitors Auditorium, Channel Islands National Park Headquarters
1901 Spinnaker Drive • Ventura Harbor, CA**

Note: Audio tape recordings of this SAC meeting are available upon request; contact the SAC Coordinator at 805-884-1464.

Attending:

GOVERNMENT REPRESENTATIVES:

NATIONAL PARK SERVICE

Member Dan Richards for Russell Galipeau

US COAST GUARD

Alternate John Luzader

MINERALS MANAGEMENT SERVICE

Alternate Fred Piltz, Ph.D.

US DEPARTMENT OF DEFENSE

Alternate Walter Schobel

CALIFORNIA COASTAL COMMISSION

Member Rebecca Roth

COUNTY OF SANTA BARBARA

Alternate Jackie Campbell

COUNTY OF VENTURA

Alternate Jack Peveler

COMMUNITY REPRESENTATIVES:

Non-CONSUMPTIVE RECREATION

Member Jim Brye [SAC Vice-Chair]

CONSERVATION

Member Linda Krop [SAC Secretary]

Alternate Greg Helms

BUSINESS

Member Michael Hanrahan

RECREATIONAL FISHING

Member Merit McCrea

EDUCATION

Member Craig Taylor

RESEARCH

Member Dr. Robert Warner

PUBLIC AT-LARGE

Alternate Avie Guerra

PUBLIC AT-LARGE

Member Dr. Matthew Cahn [SAC Chair]

Alternate Jim Knowlton

NON-VOTING MEMBERS:

Channel Islands National Marine Sanctuary

Chris Mobley, Manager

Absent:

GOVERNMENT REPRESENTATIVES:

NATIONAL MARINE FISHERIES SERVICE

Member Mark Helvey
Alternate Tonya Ramsey

NATIONAL PARK SERVICE

Alternate Gary Davis

US COAST GUARD

Member J. Wade Russell

MINERALS MANAGEMENT SERVICE

Member Joan Barminski

US DEPARTMENT OF DEFENSE

Member Alex Stone

CALIFORNIA RESOURCES AGENCY

Member Brian Baird
Alternate Melissa Miller-Henson

CALIFORNIA DEPARTMENT OF FISH AND GAME

Member Marija Vojkovich
Alternate John Ugoretz

CALIFORNIA COASTAL COMMISSION

Alternate Gary Timm

COUNTY OF SANTA BARBARA

Member Dianne Meester

COUNTY OF VENTURA

Member Lyn Krieger

COMMUNITY REPRESENTATIVES:

TOURISM

Member (seat vacant)
Alternate Monica Baker

Non-CONSUMPTIVE RECREATION

Alternate Eric Kett

BUSINESS

Alternate Darren Caesar

COMMERCIAL FISHING

Member Harry Liqournik
Alternate (seat vacant)

RECREATIONAL FISHING

Alternate Steve Roberson

EDUCATION

Alternate Barbara LaCorte

PUBLIC AT-LARGE

Member (seat vacant)

RESEARCH

Alternate Dr. Dan Brumbaugh

NON-VOTING MEMBERS:

Monterey Bay National Marine Sanctuary

Member Bill Douros, Sanctuary Superintendent
Alternate Sean Morton, Management Plan
Coordinator

Gulf of the Farallones National Marine Sanctuary

Maria Brown, Manager

Attendance

At roll call 15 of 20 voting seats were represented, with 16 of 20 present in the afternoon. Voting seats absent for the day were Tourism, Commercial Fishing, California Resources Agency, California Department of Fish and Game, and NOAA Fisheries. A total of 17 SAC representatives were in attendance for the day (7 members, 9 alternates, 1 non-voting). Chumash seats did not yet have representatives. Public attendance peaked at approximately fifteen individuals.

Administrative Business and Announcements

Membership and Recruitment Status: Mike Murray (CINMS)

Mike Murray provided an update on status of recruitment for open seats. Ten applications were received for the open Public At-Large seat, and are currently being reviewed. The application period was extended for the tourism, research and commercial fishing alternate positions. Those applications are now in and reviews will begin on July 26. The appointments for these seats should be finalized in August. Mike also announced that eight seats will be due for turnover in

January and February of 2005, so there will be a significant recruitment drive this fall. In response to Jack Peveler's question about how many applications were received for the commercial fishing alternate Mike replied that two applications were received, which he explained was likely due to there being a lot of support for a select few individuals.

Comment on/Adoption of Meeting Notes

The SAC voted to adopt the draft May 21, 2004 meeting notes as is (with one abstention).

Sanctuary Manager's Report: Chris Mobley (CINMS Manager)

Chris Mobley announced that the Manager's Report was mailed to SAC members about ten days prior to the meeting along with their meeting packets, and is available to the public on the meeting literature table. Chris then highlighted the following from the report:

- A new bilingual outreach person will be hired for CINMS to expand the Monterey Bay Multicultural Education for Resource Issues Threatening Oceans (MERITO) program. And applications have also been collected to expand the Monterey Bay Water Quality Protection Program (WQPP) to other west coast sanctuaries. There has been a lot of interest in water quality so we are excited to get someone on board to identify and address gaps in water quality research and management in the Channel Islands region.
- Last week the Sanctuary took 28 members of the Chumash community to Santa Cruz Island. Chris then extended thanks to Roberta Cordero and Ricardo Melendez, both participants in that trip, who were in the audience and who each then offered a comment:
 - Roberta Cordero indicated that one of best results of that trip was an interest in developing a formal or informal council for the SAC Chumash seat to have a way to interact with the Chumash community as a whole and be truly representative of it.
 - Ricardo Melendez reflected that earlier at this meeting he heard a conversation about homeland security. Ricardo then stated that it was a blessing and honor to take a trip to the Chumash homeland and that we know that it's being taken care of, it's being secure. Ricardo then indicated that he would do whatever he could to support organizations like the Sanctuary and SAC that are protecting the Chumash homeland and making it secure for future generations, adding that he would be interested in becoming a part of that through the SAC Chumash seat.
- Chris acknowledged Jim Brye for his role in organizing the August SAC barbecue. Matt Cahn added that the picnic at the Ventura Yacht Club, while not mandatory, is a very important way to have fun and get to know each other better, stressing that it's not just one more agenda item.
- Chris announced that Sanctuary education staff put together a marine reserve poster with a slogan based on feedback, including that from the SAC. The poster is titled, "Channel Islands Marine Reserves...Wild for the Future!" The backside provides suggestions for classroom activities, and information about the park and sanctuary. Chris and Mike offered the posters to SAC members.
- Sanctuary staff calculated the volunteer contribution to the Sanctuary in 2003. Hours donated by Channel Islands Naturalist Corps volunteers was equivalent to that of seven full time employees, while people who volunteer their time for the SAC (including SAC, working group and subcommittee members, and members of the public who come to

meetings) donated an estimated 1100 hours last year. Chris asserted that the energy such volunteers put into the Sanctuary is critical to the SAC's success.

- The Sanctuary moved its Channel Islands Harbor Office which is now larger to support more educational materials and volunteers. It's already generated a lot more visibility and visitors.
- Chris encouraged everyone to attend the ongoing "From Shore to Sea" lecture series to learn more about the islands. Upcoming lectures are listed in the Manager's Report and will cover island fox, bald eagles and mammoths and man.
- Chris also noted the marine reserves monitoring work highlighted in the Manager's Report including ROV monitoring, and a major diver training effort in June aimed at developing a rigorous diver training protocol. Upcoming monitoring work will include diver fish counts inside and outside reserves. Work to document the current baseline in and out of reserves is ongoing.

Council Member announcements

- Craig Taylor – The Wall Street Journal recently featured a story on Kaiser Oil, which is putting a natural gas pipeline 100 miles offshore from Boston. A similar idea is on target to be developed off the Texas coast.
- Linda Krop – The Environmental Defense Center (EDC) is sponsoring the 1st annual Trout Count on Sat. Aug 7 focusing on Mission Creek, providing education on endangered steelhead, and a creek walk. Contact EDC for more information. Also, the Minerals Management Service has established an August 26 comment deadline on the environmental assessments dealing with extension of 36 undeveloped oil and gas leases.
- Rebecca Roth – Yesterday the U.S. Commission on Ocean Policy conducted a public hearing in response to all governors' comments on their report. California sent extensive comments including a recommendation not to transfer oversight of nonpoint source pollution from NOAA to EPA. In addition to commenting on the report, Governor Schwarzenegger directed his secretaries to develop a plan for how California can improve the health of its coasts and ocean. There will be two public workshops on this, one in Los Angeles, and one in San Francisco in late August. Brian Baird will provide information to SAC members on how they can provide input in the State's adoption of an ocean plan.
- Jim Brye – The SAC barbecue will include availability of a moderately priced meal, but there is no prohibition on bringing your own food and drink, along with sabats and kayaks.
- Bob Warner – The Research Activities Panel that SAC members approved the formation of at the last meeting is coming along. Developments include a draft charge for the panel, and a draft list of institutions and individuals to be invited to participate in the first meeting. Invitees will be asked to review selected portions of the Sanctuary's preliminary draft document for consideration of marine reserves. Bob also acknowledged work being done on Sanctuary water quality, in particular by Linda Krop and the Conservation Working Group. Bob introduced Jessie Altstat who described Santa Barbara Channel Keeper's work, partnering with UCSB and local and state agencies, to collect water quality data for the last three years in the Ventura River and Goleta watersheds. Jessie also explained plans to do water quality monitoring, looking primarily at bacteria, in the Sanctuary and at the Channel Islands. Jessie announced that Keira Schmidt is the new Director of Santa Barbara Channel Keeper. Keira – came from the Blue Water Network, which recently petitioned the National Marine Sanctuary Program (NMSP) to ban discharges from cruise ships, where she worked on environmental impacts from shipping.

- Chris Mobley introduced Sanctuary summer interns Darren Hardy from UCSB's Bren School and Angela Haren from UCLA, along with Mati Waya from the Chumash community. Mati Waya announced a Chumash marine protected areas (MPAs) initiative as an effort parallel to that of the Sanctuary for protection of this area.
- Linda introduced Steve Shimek who is with Otter Project and a conservation alternate on the Monterey Bay National Marine Sanctuary Advisory Council.

Update on Channel Islands Marine Protected Areas: Sean Hastings (CINMS) for John Ugoretz (CDFG)

Sean indicated that the Sanctuary Manager's Report included examples of SCUBA, ROV, and other MPA surveys. He added that more details would be provided with Dirk Rosen's upcoming presentation on ROV monitoring later in the morning. The California Department of Fish and Game (CDFG) will propose at the August Fish and Game Commission meeting that they provide the Commission with MPA monitoring updates three times per year: spring, summer, and an end of the year wrap up. John wanted to mention this since the SAC may want to determine how CDFG should provide updates to it, and may want to consider the same three CDFG presentations. Another model is that at Florida Keys National Marine Sanctuary where they have an annual monitoring report.

Bob Warner indicated that since monitoring occurs on a yearly basis reporting three times per year is overkill. Sean Hastings conceded that we could entertain an annual reporting mechanism.

Sean concluded by indicating that two items on the August Fish and Game Commission meeting (in Morro Bay Aug. 26-27) agenda may be of interest to SAC members and the public: an update on MPA monitoring, and an overview on the Federal phase to consider marine reserves in terms of the environmental document and next steps. Fish and Game Commission meeting details will be on the CDFG web site.

Federal CINMS Marine Protected Area Environmental Review Process: Sean Hastings (CINMS)

Overview of the Federal Process

Sean announced that at the end of May the Sanctuary publicly released a staff preliminary environmental document on consideration of marine reserves, which was mailed to SAC members and is available on the Sanctuary web site. Sean explained that he wanted to provide the SAC with a timeline update on this environmental review process, an overview of what is in the environmental document, guidance on the type of feedback the Sanctuary is looking for on the environmental document, and offer some insight on what the Sanctuary is hearing so far from groups reviewing the preliminary draft environmental document including the Pacific Fishery Management Council (PFMC) and the SAC's Conservation Working Group and fishing working groups (today's SAC meeting packet includes reports from these working groups as well as a PFMC-issued statement from July 8).

Brief Overview of Preliminary Working Draft Environmental Document

Sean emphasized that this is a preliminary working draft environmental document. Publicly

releasing such a document is not required by law and is the Sanctuary's effort to give the public an idea of where it going before releasing a formal draft, which will then initiate a formal 60 day public comment period. Sean acknowledged that there has been some confusion that the preliminary working draft is the formal draft and that a NOAA decision will be made based on it, but he explained that this is not the case since the current draft is a preliminary working draft. Sean stressed that there are large sections of the draft that have not been completed or incorporated yet, including a section on cumulative effects and a glossary of terms. Sean also acknowledged that lack of these sections may hinder review at this stage but asked that reviewers keep in mind that these sections are forthcoming.

Sean summarized important elements that are included in the preliminary working draft document:

- The purpose and need - lists sanctuary objectives for why we are proposing action and what we hope to achieve. During our analysis we will refer back to determine how each alternative meets those purposes. These purposes are not verbatim with what came out of the Marine Reserves Working Group (MRWG) process.
 - The history of the MRWG process, its goals and objectives are described.
- The affected environment – describes the Sanctuary socioeconomically and environmentally. The Sanctuary is working to update the data for this section since much has changed in the Sanctuary environment since the MRWG process started six years ago, including changes in relevant regulations, harbors, and data available. Data from a current biogeographic assessment of the Sanctuary region is being incorporated and socioeconomic data for deep-water areas of the Sanctuary is being assessed for trends. The Sanctuary welcomes information on other potentially useful data sources for this section.
- A range of four alternatives – a no action alternative (not yet fully developed) which describes the status quo regulatory world, including decisions by the State to implement MPAs, the PFMC-adopted cowcod and rockfish conservation areas. All other alternatives are measured against the no action alternative. The Sanctuary must determine how the no action alternative meets the purposes described in the document. Next, three other alternatives suggest a range of no take zones and conservation areas differing in size but not in terms of extent and location. Additionally, this section would include a description of other alternatives considered but dismissed as they do not meet the objectives. Sean explained that the alternatives are the result of an extensive working group process (over 40 different maps were drawn during the MRWG process), and that the State's California Environmental Quality Act (CEQA) process and the five alternatives considered in it are also influential. Sean clarified that the Sanctuary cannot change what the State decided in its CEQA process.
- Environmental and economic impacts of alternatives – provides a general overview of impacts but is currently lacking a cumulative analysis. Sean asked SAC members to consider whether they would like to suggest specific analyses or data for this section.
- Implementation of alternatives – the Sanctuary plans to build on the community involvement in development of education and outreach products, and monitoring plans for the current MPAs in state waters in order to demonstrate similar ability for any MPAs implemented in federal waters. The DEIS will provide information on how we will extend those efforts if we went into deeper water. NMSP staff are working on deep water monitoring concepts, what questions we would ask and how we would answer them.

SAC Member Discussion

- Linda Krop stated that the Conservation Working Group would find the document more helpful if it provided a more comparative analysis between alternatives via a narrative and/or chart or table, in addition to spatial maps.
- Bob Warner noted that the PFMC's science and statistical committee (SSC) has produced a draft document to provide the PFMC with guidance on how to handle comments on marine reserves. Bob asked whether that white paper is shaping the Sanctuary's work with the PFMC. Chris Mobley responded that since the paper is a work in progress the SSC is not trying to hold the Sanctuary to information recommended in the paper, though he acknowledged that many of their comments and suggestions are parallel to suggestions embodied in that paper.
- Bob Warner asked for clarification of the PFMC's role in this Sanctuary process given the letter from PFMC Executive Director Don McIsaac to Chris Mobley that was included in the day's SAC meeting handouts. Chris Mobley indicated that the Sanctuary has had several meetings with the PFMC over the last few years to determine exactly how to work with them under section 304 (a)(5) of the National Marine Sanctuaries Act, which provides regional fishery management councils with the opportunity to draft sanctuary regulations to meet NMSP needs for anything that would affect fishing. However, Chris asserted that as lead agency on this action the NMSP, will determine the preferred alternative which will then need to be cleared through NOAA. Chris acknowledged that the PFMC will have influence and be heard at higher levels of NOAA as the Sanctuary seeks clearance.
- Greg Helms asked whether the affected environment description is essentially the no action alternative. Sean Hastings confirmed that if the Sanctuary does a good job describing the affected environment it will cover all of the information in the no action alternative. Chris Mobley clarified that the affected environment typically describes the present, while alternatives must include descriptions of future results of their implementation over the long-term.
- Greg Helms added that he agrees with one of the main themes of the PFMC and fishing community: the Sanctuary's job and unique function is not fishery management, it should be considering MPAs and habitat. Greg recommended that the Sanctuary not choose an option outside the purview of the PFMC so that the PFMC will support it. Chris Mobley explained that it would be incumbent on the PFMC and Fish and Game Commission to review their management and see how it does or does not address the needs of the Sanctuary in its smaller geographic area.
- Greg Helms also asked for specificity on the timeline for completing a marine reserves final EIS. Chris Mobley explained that the Sanctuary would like to complete its management plan first so as not to have two draft EIS's simultaneously available for public review. He offered that it is reasonable to believe that the Sanctuary can release a draft EIS early next year and explained that a final EIS is typically released six months to a year after release of a draft.
- Linda Krop noted that it would be helpful to have a map of common place names that are referred to in the text of the EIS, such as "the footprint." Such a map would allow people to see whether or not they are included within proposed alternative MPA networks. She added that it would be nice if the document described the main reason is for each MPA extension: is its purpose to include different habitat types, like deeper water habitat or rocky substrate, or simply to make the reserve larger for more protection or more immunity to catastrophic

events?

- Rebecca Roth stated that adding a potential alternative based on what the PFMC might want would be an awful precedent to set. She suggested that the SAC invite Don McIsaac to the September SAC meeting to provide information on the PFMC's position so they know the SAC is considering their input. Sean Hastings agreed with this idea and further suggested that SAC Chair Matt Cahn attend the November PFMC meeting. He added that Sanctuary staff have been forwarding information between these two councils but there is no better way than to do it in person.
- Rebecca Roth also suggested that NMSP Headquarters participate in some of these meetings so they have a better understanding of what the various communities and councils have done thus far. Chris Mobley responded that NMSP Headquarters have been participating directly, but even higher levels of the decision chain must simply be briefed. He also indicated that the July letter from Don McIsaac and the PFMC provides an opportunity to initiate meetings higher in NOAA. Bob Warner added that the idea of inviting other councils to come to the SAC may help set a tone of communication and a sense of control, rather than a sense that the SAC is reporting to other councils.
- Sean Hastings explained that this is an absolutely new process for the west coast between a fish council and sanctuaries so if it seems unclear as to who takes what role at each step, it's because it is. We have stumbled into an area where everyone has some jurisdiction and we are looking for creative ways to build coordination and cooperation.
- Jackie Campbell wondered why one interest group is separated out rather than having their input included in the scoping process comments. Chris Mobley responded that when the preliminary document was released the Sanctuary understood that fishermen were interested in providing something that could become a full alternative. While this contribution could technically be part of scoping, the Sanctuary wanted to separate it out for this preliminary process, but it wouldn't be presented that way in a draft EIS.

Sean invited SAC members to work with their agencies and constituents and hold working group meetings so that in September the SAC can forward working group input and SAC member input on the preliminary environmental review document to the Sanctuary. Sean then summarized what type of review the Sanctuary is looking for between now and the September SAC meeting, and requested that SAC members review the criteria used to develop the alternatives and consider: 1) whether the evaluation criteria are clear, 2) whether the range of alternatives is clear, appropriate and meets those evaluation criteria (if not, then suggest how the alternative should be changed), and 3) whether the impact analysis/approach is understandable, sound, or lacking something. Sean stated that editorial and organizational comments would also be helpful.

SAC and Working Group Processes for Document Review

Matt Cahn explained that there are six elements to the process that SAC members agreed on at the may meeting:

1. SAC members and working groups will review the preliminary document between now and the September 24 meeting;
2. Staff will be available to help working groups;
3. Working groups will prepare comments that will be brought back to the SAC;
4. SAC will discuss working group comments and forward them to the agency;
5. Goal of SAC discussion is to reach consensus;

6. The SAC will put all comments into a letter addressed to Chris Mobley and attach working group statements.

SAC members and Sanctuary staff then discussed using a process similar to that used to capture SAC member comments during the marine reserves scooping period: develop a list of items unanimously agreed upon, and a list of items members felt strongly about even though they were not agreed to by consensus, then all comments should be forwarded to the NMSP. Chris Mobley endorsed this approach to represent the full spectrum of views. Matt Cahn then summed up the discussion indicating that the SAC would put all comments into a letter to Chris and attach working group statements.

- Greg Helms asked about the best timing for receiving input from general members of the public and asked if there would be a public comment forum on the preliminary document, or if it would be better to wait to solicit general public input on the formal draft. Matt Cahn indicated that there would be a public comment period at the September SAC meeting that could help shape SAC member viewpoints. Chris Mobley added that if a member of the public had an idea not already expressed in SAC or working group they could provide it and the SAC could forward it in an additional attachment of public comments.
- Michael Hanrahan suggested that Chris and Sean hold interim tutorials for working group leaders during which they point out the key elements of the document so these leaders are better educated about how to clearly present this 170-page document to their constituents. Sean responded that Sanctuary staff are working on a set of essentially Cliff's notes and reiterated that the three most important elements to review are the purpose statements, range of alternatives, and analyses. Chris added that it is also important for working group chairs to identify what sections are most important for them.
- Rebecca Roth suggested that the same guidance be provided for the PFMC. Chris responded that anyone could make any comments they wish to make. Sean added that it's difficult to distribute something that is helpful but not leading, and noted that anything the Sanctuary publicly distributes must be cleared. Rebecca suggested taking this page out of the minutes and explaining that it represents what Sanctuary staff and SAC members discussed and what staff are looking for in document review. She added that this could be provided to the PFMC and be put on the web site.

The SAC then discussed how the September discussion should be facilitated. There was general agreement that SAC members and staff should not facilitate or record the resulting information so that they may be fully engaged in the discussion. Matt Cahn concluded that whether or not a facilitator is used hinges on the quality of the facilitation available and suggested not committing to the idea unless a good facilitator is available.

Public Comment

- Jim Marshall introduced himself as a sea urchin diver and member of the Collaborative Marine Research Project (CMRP) Steering Committee. Mr. Marshall explained that the CMRP is designed to support collaborative projects between researchers and fishermen, such as a fish- tagging project between UCSB's Jenn Caselle and fisherman Chris Hoeflinger. The CMRP is funded by the Channel Islands Marine Sanctuary Foundation and has been

operating solely on its initial funding of \$90,000, procured when Ed Cassano was Sanctuary Manager. He explained that the CMRP is currently preparing a request for proposals that will use the last of the original funding, and as such the CMRP is in danger due to lack of funding. Mr Marshall asked that the SAC consider this issue and request the Sanctuary manager to provide funding to allow this valuable program to flourish. More information about the CMRP is available on the Channel Islands Marine Sanctuary Foundation web site.

SAC members asked Mr. Marshall several questions about the CMRP and his request. According to Mr. Marshall commercial fishermen have a concern about data poor and no data situations that contribute to precautionary decisions. They want to build up data sets to make better management decisions. He noted that they are not requesting a particular dollar amount for the CMRP, and that he believes they should also look outside of the agencies for funding sources, but noted that this is difficult to do with the foundation given limitations on their ability to operate. Mr. Marshall said they are working on the CMRP process to determine how funds will be spent, and to clarify differences between cooperative vs. collaborative research (they are currently using a definition of “collaborative” developed by Carrie Pomeroy). They have a formal RFP process, and go through a standard ranking process. They will attempt to that again with remaining funds, but the danger is they will run out of funds. He reiterated that they don’t want to place the full burden on the agency, but they got their startup funds from the agency and nothing else has come along so it is a question of whether the agency has a policy on this.

Chris Mobley responded that the Sanctuary is doing several things right now to bolster the local foundation’s administrative capacity and to enable Research Coordinator Sarah Fangman to have more time to work on research funding concerns. Chris concluded that the Sanctuary does support this program and is attempting to take steps to keep it going. Matt Cahn suggested deferring further SAC discussion of Mr. Marshall’s request to the September meeting. The SAC agreed to address the CMRP in September.

- Roberta Cordero noted that with regard to a future SAC session to capture comments on the preliminary staff working draft marine reserves document, if the Sanctuary does hire a facilitator it is really important at the outset to clarify with them the differences between consensus and non-consensus, and which the goal is. She added that it is also important to have an agreed to secondary decision mechanism.
- Steve Shimek, Executive Director of The Otter Project, indicated that the sea otter population is up and comprised mostly of males. Therefore, he suggested that this region will likely see an increase in otters since males tend to wander. He also invited CINMS SAC members to attend the next Monterey Bay National Marine Sanctuary meeting in Cambria on August 6, at which they will prioritize among the 20 action plans (totaling \$30 million, conservatively) in their Joint Management Plan Review process.

Informational Presentation on a Remotely Operated Vehicle (ROV) Baseline Survey of Channel Islands MPAs: Dirk Rosen (MARE)

Dirk Rosen, President of Marine Applied Research and Exploration (MARE), provided an

overview and brief video from a recent ROV Survey of fifteen sites inside and outside MPAs within the Sanctuary [*PowerPoint presentation available from CINMS upon request*]. Mr. Rosen explained that exploration and monitoring are needed to: evaluate the impact of MPAs on biodiversity and fisheries, evaluate habitat quality of selected and potential sites, and understand species' habitat requirements. He also explained the advantages of the ROV survey method as follows: data are digitally archived and scientifically verifiable, able to accurately locate bottom features and biota geospatially, compliments PISCO diver studies with virtually unlimited bottom time, it's non-extractive, time and cost effective. The goals of the survey are to: perform baseline underwater surveys inside and outside MPAs with similar habitat (characterize habitat and establish a baseline video record of fish and invertebrates), train partners in ROV operation and techniques, refine biodiversity and abundance survey protocols. Mr. Rosen showed ROV videos from several of the fifteen sites surveyed, demonstrating utility of several tools on the viewing screen that indicate, among other things, depth, temperature and the size of objects and organisms within the field of view. So far 34 kilometers have been surveyed, about half in and half outside MPAs. The cost for the ROV work and data processing was about \$200 thousand (CA contributed \$30 thousand and NOAA contributed 15 days of ship time). Now that these ROV surveys have been demonstrated to work and serve as a quantitative tool, MARE will be soliciting additional funds for further surveys of the same and additional sites.

Mr. Rosen also explained the approach used to select sites, gather and present data: USGS multibeam sonar maps are used to determine site placement (sometimes ground truthed, sometimes not), also maps from Rick Cavitech at Cal State Monterey Bay are spot on accurate; next the ROV location and path are planned and the actual path taken is recorded; habitat is defined (sand, rock, boulder); fish maps are developed (real time counts of selected species). Dirk added that John Butler, a PhD in San Diego, is experimenting with fish finder sonar and ROVs so he sees what's above the ROV and can predict what shows up on sonar, then verify it.

SAC Member Questions/Comments

- Fred Piltz asked what happens to the data after it is collected. Dirk replied that the data is public since CDFG processes it and Channel Islands Naturalist Corps members process the habitat classification. He added that all video archives are available to people who participated in the project. However, he noted that generated products such as maps result in a dilemma: while there is no problem with giving data on where fish are inside MPAs, Dirk stated that he's not sure that similar data outside MPAs should be given out.
- Fred also asked if benthic invertebrates are being quantified to which Dirk responded that it's a question of processing time, adding that all of the video is available so this type of quantification can be done.
- Fred then asked if the surveys are being conducted inside and outside only the established State MPAs, or if they are also being conducted in potential federal reserves. Dirk explained that the potential federal reserves are deeper than the ROV surveys currently being conducted.
- Bob Warner indicated that neither shallow SCUBA nor ROV surveys capture some commercially important species, like lobster. Second, Bob explained that the research community is shying away from calling areas outside reserves "controls" since there may be impacts outside of the reserves from the reserves being established. Instead, Bob suggested calling these areas "reference areas."

- In reply to Bob Warner's question about real time vs. post-processing for fish count data Dirk stated that they had ten species on a keypad that they could key in as they saw them, so those can be processed in real time, while the remaining species must be processed post dive. Dirk added that habitat post-processing takes about 20 hours; while for fish you can process five species in about two hours, per hour of tape.

Marine Acoustics Panel Presentations and Discussion

Matt Cahn reminded SAC members that they received a document containing background information on the panel, along with panel member biographies, in the meeting packet mailed in advance of the meeting. He indicated that copies of this background material are also available for members of the public on the information table in the back of the room. In addition, Matt noted that the meeting packet also included two marine acoustic reference documents provided by invited panelists: State Regulation of Underwater Noise by Mark Delaplaine, and Anthropogenic Noise and the Channel Islands National Marine Sanctuary by Shiva Polefka. The latter includes a revised set of recommendations for SAC consideration that Shiva Polefka and Linda Krop will address during their presentation and working group report, respectively.

Overview and Introductions: Sarah MacWilliams (CINMS)

Sarah explained that the topic of marine acoustics and their impacts is acknowledged as an emerging issue in the Sanctuary's draft management plan, as well as by the SAC and its Conservation Working Group. She recounted that the SAC Conservation Working Group first presented the SAC with a draft suite of recommendations on marine acoustic impacts at the September 19, 2003 SAC meeting. Sarah explained that at that time SAC members requested presentations by marine acoustics experts at future SAC meetings in order to improve their understanding of marine acoustics, and to be better prepared to further consider the Conservation Working Group's recommendations on the subject. Sanctuary staff organized this marine acoustics panel session in response to the request for more information.

Next, Sarah explained that the format of the panel session will be as follows: each panelist will provide a presentation covering his/her area of expertise, followed by a brief question and answer session; once all of the panelists have provided their presentations there will be an open question and answer session and SAC member discussion. Sarah noted that a public comment period had also been scheduled following the panel session so that members of the general public may address the panelists, as well as comment on any other items of interest.

Sarah explained that the panelists would include Peter Howorth, Director of the Santa Barbara Marine Mammal Center; Monica DeAngelis, Marine Mammal Biologist with NOAA Fisheries; and Shiva Polefka, a Science and Policy Research Fellow with the Environmental Defense Center. Sarah acknowledged that the Navy and Air Force were both invited to participate but declined. Nonetheless, she indicated that Adel Hashad, Environmental Program Manager, Space and Missile Systems Center, Los Angeles Air Force Base who had to retract his presentation was able to join the SAC meeting and is seated in the audience and available for questions. Sarah also noted that while California Coastal Commissioner Sara Wan was not able to participate in the panel she is also in the audience and available for comment and questions.

Panel Presentations

Peter Howorth – Director, Santa Barbara Marine Mammal Center

Mr. Howorth provided a PowerPoint presentation and handout [both available from the Sanctuary upon request] on measurements and impacts of underwater noise. He covered basic physics of underwater noise, along with information on various types of estimated impacts on various marine organisms. Key points of Mr. Howorth's presentation included:

- Noise in the marine environment comes from many sources. Whales, fish, invertebrates all contribute to biological noise. Physical noise results from wind, waves, rain, hail, ice cracking, rocks in the surf. There is a lot of low frequency acoustics (LFA) from natural seismic events on the sea floor. Thermal noise is molecular and we cannot hear it. Currents and turbulence can also cause noise.
- Sources of anthropogenic noise include: shipping, oil drilling, pile driving, sonar (including fish finders), geophysical noise (airguns), dredging, aircraft, ATOC, construction explosives, military and civilian space launches.
- When considering impacts of noise it is important to consider whether the noise: is continuous vs. transitory, high frequency vs. low frequency, unidirectional vs. omnidirectional,
- Modern ships have a bulbous bow which eliminates the bow wave and results in much quieter ships which can actually be dangerous in terms of potential for collisions with whales.
- True hearing ranges for many animals are unknown and some animals can detect sounds beyond their normal hearing ranges if they are sufficiently loud.
- While the U.S. Navy has established commonly used standards for establishing protective zones around explosive events.
- There are no established acoustic impact prevention standards for shipping and aircraft noises, though financial incentives to reduce shipping noise may be beneficial and there are altitude restrictions on aircraft.
- Examples of acoustic impacts include:
 - Flushing of seabirds and pinnipeds from nesting and rookery sites caused by aircraft noise emissions. Among pinnipeds this can lead to miscarriages and/or trampling of pups while seabirds may suffer predation upon young left behind in their nests.
 - Masking may result in difficulty detecting predators, other animals, prey, and threats such as approaching ships.
 - Interference with social vocalizations including those crucial to successful mating among endangered species.
 - Behavioral avoidance of certain high impact areas formerly utilized by affected species as habitat or migration routes.
 - Temporary or permanent hearing threshold shift among marine mammals and seabirds – meaning that an animal's hearing is temporarily diminished at certain frequencies. Birds do not have the problem to the same extent as marine mammals. In some cases though the damage may be repaired the animal may be vulnerable while the damaged tissue is being regenerated.
 - The bends - sonar may result in bubbles forming within an animal's tissues, along with shearing or other damage of tissues. Animals with air cavities in their bodies are much more vulnerable, e.g. fish with gas bladders. Fish raised from deep water suffer from

decompression, the same result of rapid compression or decompression can occur due to sonar shock waves. Organisms without gas bladders such as nudibranchs or jellies are far less susceptible since their bodies are virtually the same density as seawater.

- Means of avoiding impacts may include:
 - Using sound attenuation devices.
 - Requiring that project proponents use technology to reduce anthropogenic sound may be required of proposed projects, or a benefit or other tradeoff may be provided to encourage reduced impacts.
 - Projects may be timed to avoid migrations or other critical periods for species of concern, e.g., gray whale migrations.
 - Hazard zones (e.g. areas where projects have happened and no impacts were documented) may be established.
 - Education and outreach about potential impacts and ways they can be avoided.
 - Careful project evaluation and monitoring, and adapting safety measures as necessary.
 - Acoustic deterrence devices.

Monica DeAngelis – Marine Mammal Biologist, NOAA Fisheries Southwest Region

Monica DeAngelis provided a PowerPoint presentation [slides available upon request] on federal regulations and permitting relevant to take and harassment of marine mammals through the Endangered Species Act and Marine Mammal Protection Act, and explained how marine acoustics are currently addressed under these laws and their associated permits.

- NOAA Fisheries Protected Resources Division deals with endangered species, manages a stranding network, coordinates activities for research, and handles outreach.
- NOAA Fisheries Acoustic Division (at headquarters or HQ):
 - evaluates national level projects
 - funds research, lab studies and conferences on acoustics.
 - educates and provides tools to people in regional offices.
- NOAA Fisheries regional offices:
 - evaluate regional projects and coordinate with HQ
 - use noise criteria (not standards since there is insufficient data to develop reliable standards) to process authorizations for pinnipeds, cetaceans, in-water vs. out of water
 - in future NOAA will have expanded regional acoustics program
- Federal laws and NOAA Fisheries permits:
 - Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) have definitions of take and harassment
 - These definitions are being revisited, in part because they were written in advance of some concerns we have today such as acoustic impacts.
 - Take of protected animals may be permitted under certain conditions, but there is no definition for acoustic take under MMPA and ESA, noise isn't even mentioned. Noise criteria is being developed by scientists around the world. Will likely result in definition of acoustic take.
 - NOAA Fisheries is mostly concerned with mid-frequency, high power systems e.g. military sonar, seismic arrays, explosions (frequencies between 7Hz and 200kHz).

Shiva Polefka – Science and Policy Researcher, Environmental Defense Center

Shiva Polefka provided a PowerPoint presentation [presentation available upon request] on sources on anthropogenic noise in the Sanctuary, and their potential impacts on Sanctuary resources, as well as recommendations developed by the Conservation Working Group to begin addressing research needs for science and policy to address impacts of anthropogenic noise. Key points from the presentation are as follows:

- Noise is a pollutant, though we typically think of pollutants as chemical. Noise alters the environment and should be managed as a pollutant.
- More research is needed to expand on the existing base of knowledge on potential acoustic impacts on marine life
- Noise producing activities in the CINMS, and those that are significant or have potential to be:
 - Small vessel traffic (diffuse, high frequency, sporadic)
 - Seismic surveying & naval mid- and low-frequency active sonar: associated with damage to tissue in marine mammals and subsequent death, last seismic survey in 1995 in our region; low frequency active sonar tested in the 90s
 - Large Vessel Traffic yields greatest potential impacts: container, dry bulk, tanker; constant, low frequency; sound perceptible 10s to 100s of kilometers away. (From conservation standpoint concluded that this is the most significant source of noise due to amount of activity; large vessels travel within 10 to 15 miles of sanctuary; the average vessel traffic rate is 17 to 18 ships per day)
- Why do we need to consider precautionary resource management?
 - Predicted 5% annual increase in ship arrivals to Los Angeles from Asia alone.
 - Modern vessel designs are increasingly larger
 - Industry entrenchment – easier to build quieter ships rather than to retrofit old designs
- Scientific research needs: Noise monitoring in and around sanctuary; vessel traffic monitoring; biological impacts data; ecological impacts data
- Policy and Partnerships: monitoring, research and management partnerships; working with shippers and shipping companies (bring Intertanko and Chamber of Shipping to SAC meeting or to meeting of sanctuaries; enthusiastic to be part of solution since noise production from ships is unintentional and represents inefficiency); international cooperation and MARPOL; assess environmental and economic impact of large vessel traffic reroutings (noted voluntary rerouting program for oil tankers, rerouting 50 miles offshore; if shipping lanes are the shortest distance and we reroute the large ships a longer distance may result in a bigger problem elsewhere and actually cause more noise)

Public Comment

Kara Horowitz from the Natural Resources Defense Council (NRDC) and marine mammal protection project introduced herself and explained that NRDC is working on this issue domestically and internationally. The International Whaling Commission (IWC) recently came out with a report emphasizing threats to whales and responses to those threats. They found compelling evidence that military active sonar causes damage to whales. IWC recommends control of noise in sanctuaries around the world. Your work could not be more cutting edge or timely. A few thoughts on CWG report: get an acoustic inventory that is comprehensive of what man-made sounds occur, at what levels, from what sources. Also like to suggest potential for seismic exploration noise to reach sanctuary. Regarding Navy activities, many are confidential but to find out what noise can reach the sanctuary would be important. The IMO would be the

body the Sanctuary would have to work with to discuss shipping lanes, and the Monterey Bay National Marine Sanctuary (MBNMS) worked with them to reduce its potential for oil spills.

Steve Shimek offered that the MBNMS SAC does have a lot of experience working with the IMO on vessel traffic. However, he noted that in his opinion the Department of Defense is the biggest problem in our area. He noted that DOD has a huge problem with the idea of having ships go around the islands.

Sara Wan of the California Coastal Commission introduced herself. She wanted to remind everyone that in addition to the federal acts, projects proposed also come under state law via the CA Coastal Act, and the federal Coastal Zone Management Act that conveys regulatory powers for the state. Sara is on the Advisory Committee of the Marine Mammal Commission which has 28 members and includes reps from federal agencies, navy, scientific community, environmental groups, and shipping. Sara is the sole representative of state governments. She urged people to visit the Marine Mammal Commission web site and attend the public hearings they are holding. The purpose of the committee is to prepare a report for congress regarding regulations, permits and mitigation.

Sara Wan emphasized the need for precaution. She stressed that she cannot emphasize enough that we know almost nothing about acoustic impacts on marine mammals, which is especially important in a sanctuary. She noted that she and Linda Krop sat on a HESS (high energy seismic survey team) in 1985 that was convened by MMS and which came up standards of noise levels including that below 180db there would be no harm to marine mammals. But she cautioned that the standards have been misused. Linda Krop added that the HESS panel was reluctant to come up with a number and now that number is being used in the manner they were afraid it would be used.

Given the impossibility of doing experiments on large mammals Fred Piltz asked how the MMPA and ESA apply to captive animals? Monica replied that they do apply to captive animals and noted that it is still difficult even with captive animals to get at research they would like to have done. Plus, she noted, captivity can also throw in other factors. Sara Wan offered that more is being learned about marine mammals through passive, non-invasive means which do not invoke ethics questions.

Michael Hanrahan, Shiva Polefka and Peter Howorth discussed the catch 22 concerning quieter propellers at the aft of vessels that may lead to whales being struck at a large vessel's bow. Shiva added that similar problems also arise simply from whale becoming habituated to the noise caused by ships. Peter also noted that if you route ships further offshore are you rerouting them into areas that are frequented by marine mammals.

Craig Taylor asked whether anyone is taking existing whale tagging data and overlaying it with shipping lanes, which he suggested may show a shift in whale movement. Monica DeAngelis indicated that you do see such a shift with gray whale data. It was noted that before one can determine whether shipping noise is causing temporary threshold shifts you need a large amount of data; therefore, the data should be assessed before asking for a change in the shipping lanes.

Rebecca Roth asked about what passive monitoring may be presently conducted at other Sanctuaries and stressed that this is something we absolutely need more information on. She suggested making a request to do passive monitoring at the Channel Islands.

Sanctuary Education Coordinator Julie Bursek announced that the Sanctuary has an acoustic array available for recording noise in Sanctuary waters. She provided a handout with more information on this equipment.

Working Group Reports

Conservation Working Group – Linda Krop

Linda summarized the July 21 working group meeting, and provided information on the working group's recommendation regarding marine acoustics. The recommendations are in the report *Anthropogenic Noise and the Channel Islands National Marine Sanctuary*. Linda also announced that Sara Polgar and Shiva Polefka have been meeting with various agencies as they work on the gap analysis of water quality monitoring and management within the Sanctuary.

Recreational Fishing Working Group – Merit McCrea

Merit briefly summarized a joint meeting held on July 22 between the Recreational and Commercial fishing working groups. Merit explained that fishermen do not want the Sanctuary having regulatory authority for regulating fishing. While they do not want the no project alternative, there is a proposal from commercial fishermen Chris Hoeflinger to make some modifications to the no action alternative.

Commercial Fishing Working Group [There was no official report for this group in particular, though Merit McCrea addressed concerns raised by both recreational and commercial fishermen in their last joint meeting. See above.]

Sanctuary Education Team (SET) – Craig Taylor

Craig reported that the SET discussed developing a menu of different products that could be useful to the Sanctuary and identified boating as an activity that requires additional outreach.

Research Activities Panel – Dr. Robert Warner

[Bob provided his report in the morning during Council Member announcements.]

Update on Biogeography Study: Lynn Takata (NOAA NCCOS)

Lynn Takata with the NOAA National Centers for Coastal and Ocean Science (NCCOS) introduced herself and explained her new role as NCCOS' West Coast Liaison. Based out of the Gulf of the Farallones National Marine Sanctuary office Lynn's role is to facilitate coordination, communication and completion of NCCOS west coast projects, and to serve as the direct point of contact between west coast clients and NCCOS Headquarters in Silver Spring, Maryland. Lynn also provided a PowerPoint presentation [available from the Sanctuary upon request] explaining completed and incomplete portions of the Channel Islands Biogeographic Assessment being prepared by NCCOS:

- vast majority of text, graphics, and analyses are complete;

- parts of summary and integration section are not yet completed;
- expert reviews of all sections have been completed;
- learned that substrate maps were missing data and so have taken time to procure better maps from NOAA Fisheries which is working to complete fish distribution maps;
- Brian Kinlan and Will McClintock provided substrate maps for additional analyses;

Lynn concluded by indicating that once the current biogeographic product is completed the NCCOS program is committed to providing ongoing support for data analysis and maps. Lynn explained that she would then be helping with the bulk of that work.

Discussion: National SAC Chairs meeting – review of 2005 meeting agenda

Mike Murray referred SAC members to information in the meeting packet regarding the National SAC Chairs Meeting, including guidelines for developing a case study. He explained that this group will be called the Council of Chairs and will be bound by a charter. Mike suggested that over the next few months the SAC develop a case study to be presented at the February 2005 Council of Chairs meeting, and noted that the National Marine Sanctuary Program would like suggestions by September 6 of policy topics to be discussed at the February meeting. Mike explained that the NMSP wants to ensure that if any Chairs plan to suggest national referendums that they do so in advance to avoid past problems caused by Chairs not having the opportunity to discuss such matters with their complete SACs in advance of the Council of Chairs meeting. Mike indicated that guidance on Chair representation is now in the charter and there is currently an opportunity to comment on it. Mike asked for follow-up on this matter via email.

SAC members discussed how the individual representing them at the meeting should present their personal views, versus attempting to represent the SAC as a whole.

Mike offered to follow-up on this item via email.

Future SAC meeting schedule and agenda topics

Mike Murray summarized the upcoming September 24 SAC meeting as follows: the SAC will provide input on the preliminary staff working draft document to consider establishing marine reserves and marine conservation areas within the Sanctuary; the Conservation Working Group recommendations on marine acoustics will come to a head; there will be an opportunity to discuss interest in liquefied natural gas (LNG), aquaculture, and water quality; SAC members will discuss the fall retreat (who is interested, for how many days, which days).

Mike noted that the SAC Executive Committee suggested a separate evening forum on LNG, rather than having an informational forum on a SAC meeting day, but no specific date has been suggested yet. Mike offered to follow up with Executive Committee about next step.

- Future SAC meetings: Friday, September 24, 2004
 October 11-14, 2004 (1, 2 or 3 day SAC Retreat)
 Friday, November 19, 2004

- Future agenda topics suggested or carried over:
 - Grace Mariculture Project
 - Platform Grace Liquid Natural Gas terminal proposals (to be held in a separate evening forum)
 - Marine acoustics – discussion of Conservation Working Group report and recommendations
 - Draft Management Plan – Preparing for its release; a preview of what’s coming this summer
 - National MPA Center – an update on their activities
 - Federal Marine Reserves Process – commenting on preliminary environmental documentation, forwarding comments from working groups

The meeting adjourned at 4:30 pm.

*Meeting notes respectfully submitted by:
Sarah MacWilliams
Channel Islands National Marine Sanctuary
sarah.macwilliams@noaa.gov*